

Journal of Andrology, Vol 22, Issue 5 804-808, Copyright © 2001 by The American Society of Andrology

JOURNAL ARTICLE

CAG repeat length analysis and mutation screening of the androgen receptor gene in Japanese men with idiopathic azoospermia

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Because androgens are required for normal spermatogenesis, we are investigating abnormalities in the androgen receptor as a possible cause of impaired spermatogenesis in patients with idiopathic male infertility. The CAG repeat length in exon 1 and mutations of the androgen receptor gene were studied in 30 men with idiopathic azoospermia and in 51 fertile men. In men with azoospermia, plasma luteinizing hormone (LH), follicle-stimulating hormone (FSH), and testosterone levels were measured and testicular biopsies were performed. The CAG repeat length ranged from 19 to 30 (mean 23.4 +/- 2.9) and from 17 to 28 (mean 23.7 +/- 3.2) in men with azoospermia and in controls, respectively. There was no significant difference between the 2 groups. In men with azoospermia, the Johnsen testicular biopsy score negatively correlated with plasma FSH ($P < .01$). However, the Johnsen testicular biopsy score did not correlate with plasma LH and testosterone levels. The CAG repeat length did not correlate with the Johnsen testicular biopsy score, or with plasma concentrations of LH, FSH, and testosterone. No abnormalities in the androgen receptor gene were detected. These facts suggest that the CAG repeat length and alterations in the androgen receptor gene are not associated with the etiology of idiopathic azoospermia.

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